

CLAIMS

1. A linear bearing assembly, comprising:
a bearing slide comprising a plurality of walls defining a cavity;
a plurality of bearing pads, wherein each bearing pad is secured to a wall of the plurality with at least one retention member; and
at least one adjustment element carried by the bearing slide in cooperation with at least one bearing pad of the plurality for adjusting a position of the at least one bearing pad relative to the wall to which the at least one bearing pad is secured.
2. The linear bearing assembly of claim 1, wherein the at least one adjustment element comprises a set screw received in a threaded aperture extending through the wall to which the at least one bearing pad is secured.
3. The linear bearing assembly of claim 1, wherein the retention members comprises bolts extending through the walls of the bearing slide and into engagement with threaded bores in the bearing pads.
4. The linear bearing assembly of claim 3, wherein the threaded bores in the bearing pads are located in tee-nuts embedded in the bearing pads.
5. The linear bearing assembly of claim 1, wherein the at least one bearing pad includes a backing plate configured to provide stiffness thereto bonded to a rear face thereof.
6. The linear bearing assembly of claim 5, wherein the at least one adjustment element comprises a set screw received in a threaded aperture extending through the wall to which the at least one bearing pad is secured.
7. The linear bearing assembly of claim 6, wherein the at least one adjustment element comprises a spring plunger.

8. The linear bearing assembly of claim 1, wherein the at least one adjustment element comprises a biasing element.

9. A method of adjusting bearing pad fit in a linear bearing assembly, comprising:
providing a linear bearing assembly including at least one bearing pad secured to a wall of a bearing slide with at least one retention member;
releasing the at least one retention member to permit the at least one bearing pad to be displaced away from the wall;
advancing at least one adjustment element carried by the bearing slide to contact a rear face of the at least one bearing pad.

10. The method of claim 9, wherein the at least one retention member comprises a bolt threaded to the at least one bearing pad, and releasing the at least one retention member comprises backing off the bolt from the at least one bearing pad.

11. The method of claim 10, wherein the at least one adjustment element comprises a set screw threaded in an aperture through the wall and advancing the at least one adjustment element comprises advancing the set screw.

12. The method of claim 9, wherein the at least one adjustment element comprises a set screw threaded in an aperture through the wall and advancing the at least one adjustment element comprises advancing the set screw.

13. A method of adjusting an abutting force to a bearing pad in a linear bearing assembly, comprising:
providing a linear bearing assembly including at least one bearing pad secured to a wall of a bearing slide with at least one retention member;
providing a guide rail having a side abutting the at least one bearing pad;
applying a force to abut the at least one bearing pad against the side of the guide rail; and

selectively adjusting the force abutting the at least one bearing pad against the side of the guide rail in contact therewith by way of adjusting at least one adjustment element carried by the bearing slide to contact a rear face of the at least one bearing pad.

14. The method of claim 13, wherein selectively adjusting the force abutting the at least one bearing pad against the side of the guide rail comprises releasing at least one retention member that secures the bearing pad to a wall of the bearing slide.

15. The method of claim 14, wherein selectively adjusting the force abutting the at least one bearing pad against the side of the guide rail comprises advancing a set screw.

16. The method of claim 15, wherein selectively adjusting the force abutting the at least one bearing pad against the side of the guide rail comprises tightening the at least one retention member that secures the bearing pad to a wall of the bearing slide.

17. The method of claim 13, wherein selectively adjusting the force abutting the at least one bearing pad against the side of the guide rail comprises adjusting a biasing element.